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REPORT NO. 3

# Cotton Fiber and Processing Test Results

CROP of

1973



Agricultural Marketing Service  
U.S. DEPARTMENT OF AGRICULTURE  
Memphis, Tenn. 38117 September 28, 1973

## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1973

### Discussion of Test Results

Short staple samples tested in the Cotton Division laboratories of the Agricultural Marketing Service to date show average fibrograph length to be longer than a year ago. Fiber uniformity is higher. Cottons are weaker in fiber strength at both zero and 1/8" gage tests. Shirley analyzer nonlint content and picker and card waste are higher than last season. Yarns spun from these samples show lower yarn appearance grades. Average spinning potential yarn number is lower than a year ago.

Southwestern medium staple samples show average fiber length to be longer compared with this period last year. Fiber strength is weaker at both zero and 1/8" gage than a year ago. Shirley analyzer nonlint content and picker and card waste are lower this year. Yarns spun from these samples are weaker and show lower appearance grades than a year ago. Yarn imperfections are higher than last season.

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This is the third of a series of reports of fiber and processing test results from the 1973 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1972", May 1973. These reports are published by the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, Memphis, Tennessee.

Changes or additions to mailing lists should be sent to:

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Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through September 21, 1973 1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.	
		2.5% span	50/2.5 unif.		Zero gage	1/8" gage			Skein str.	Appear- ance	Imperf- ections		
				Inches			Pct.	Rdg.				Mpsi	G/tex
		No.	Lbs.		Index	No.			Yarn No.				
<u>22s Carded Yarn</u>													
Short Staple: Southwest: 1972 1973	8	0.96	44	4.3	83	21	3.0	6.0	94	116	26	48	
	3	0.99	47	4.3	75	20	4.5	6.5	94	100	25	42	
Medium Staple: Southwest: 1972 1973	23	1.07	46	4.5	84	22	2.9	6.1	103	121	22	63	
	13	1.09	45	4.5	80	21	2.3	5.2	99	96	24	61	
Significant dif- ference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3	

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1973

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Grade		Name & Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Poten-tial	
				2.5% span	Unif		Zero Gage	1/8" Gage			Gra	Yel		8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx		
No			32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No	
SOUTH-WEST AREA																							
SOUTH TEXAS																							
TAFT																							
3	LM	LT SP	52	31	0.97	48	4.3	70	18	7.5	4.7	5	3	7.5	282	87	8.1	6.6	130	110	29	24	40
LANKART 611																							
90 PERCENT																							
CENTRAL TEXAS																							
TAYLOR																							
51	LM		33	1.05	46	4.5	84	22	6.3	4.0	4	3	7.3	325	102	8.2	7.1	120	110	23	18	41	
LANKART LX 571																							
95 PERCENT																							

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1973

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns											
No	Grade	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potent- tial			
				2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	No	No		No	No	
SOUTHWEST AREA																									
SOUTH TEXAS																									
PRCGRESSC																									
2	SLM	41	34	1.10	47	5.0	84	21	5.7	2.3	2	3	5.4	95 PERCENT									26	22	60
3	SLM	41	34	1.09	45	5.0	80	22	6.6	2.4	2	4	5.8	96	32	5.5	3.9	100	70	20	16	59			
SAN JUAN																									
3	SLM LT SP	42	34	1.10	46	4.4	82	22	5.4	3.4	3	4	6.1	100	32	5.3	3.8	110	90	17	13	64			
TAFT																									
3	SLM LT SP	42	33	1.06	44	4.0	71	19	6.7	2.7	4	3	5.6	96	32	6.5	4.7	100	80	20	15	58			
CENTRAL TEXAS																									
BATESVILLE																									
1	MID	31	34	1.09	44	4.6	77	22	6.6	1.8	1	3	4.2	103	35	6.3	4.6	100	90	20	17	59			

